

AF/3653



**Patent Application
Attorney Docket No. D/98093**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Inventor(s): Hogg et al.
Application No.: 09/033,222
Filed: March 2, 1998
Examiner: Jeffery A. Shapiro
Art Unit: 3653

Title: DISTRIBUTED CONTROL SYSTEM WITH
GLOBAL CONSTRAINTS FOR CONTROLLING
OBJECT MOTION WITH SMART MATTER

Commissioner for Patents
Box AF
Washington, D.C. 20231

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LETTER

Enclosed herewith is an original and two copies of Appellants' Reply
Brief on the above-identified application.

Please charge any fees associated with the filing of the Brief on
Appeal to Xerox Corporation, Deposit Account No. 24-0025. A duplicate copy
of this letter is enclosed.

Respectfully submitted,

Thomas Zell

Thomas Zell
Attorney for Appellant(s)
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3/28/2003



PATENT APPLICATION
Attorney Docket No. D/98093

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Hogg et al.

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FOR CONTROLLING OBJECT MOTION WITH SMART MATTER**

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REPLY BRIEF IN RESPONSE TO EXAMINER'S ANSWER

Sir:

Applicant respectfully submits this Reply Brief in the appeal of the present case to the Board of Appeals and Patent Interferences in response to the Examiner's Answer mailed February 25, 2003 (Paper No. 16).

reply brief
noted
JDS
4/24/03

I. Response To Examiner's Argument

1. New Grounds Of Rejection

Applicant asserts that the Examiner's Answer sets forth a new ground of rejection (see Examiner's Answer, page 4 lines 4-19, page 7, lines 11-12) by relying on an article by Carlson, Gupta and Hogg, entitled "Controlling Agents in Smart Matter with Global Constraints", published July, 1997 (hereinafter referred to as the "Carlson Article"), which is not set forth in the "Prior Art of Record" listed in section 9 on pages 2-3 of the Examiner's Answer.

As set forth in 37 C.F.R. §1.193(2), an Examiner's Answer should not include a new grounds of rejection unless a proposed amendment under §1.116 is entered by the Examiner. Applicant's proposed amendment under §1.116 (faxed July 8, 2002) was not entered by the Examiner as set forth in the Advisory Action (mailed July 9, 2002). Accordingly, by relying on the Carlson Article to support the rejection of Applicant's claims under 35 U.S.C. §103(a) in Examiner's Answer sets forth a new ground of rejection since this alleged prior art is not of record.

In addition, Applicant submits that the Carlson Article, which is incorporated in Applicant's specification by reference (see page 25, lines 12-17) may not be relied on as prior art to this Application since the authors of the Carlson Article are also inventors to this Application and the article was published (July, 1997) less than one year before the filing date of this Application (March 2, 1998).

2. Assertion Of Claim Ambiguity

The Examiner's Answer on page 7, lines 13-19, asserts that "the claim language does not appear to define exactly how many local modules constitute a neighborhood". Applicant respectfully disagrees and asserts that the invention as claimed and described in the specification is unambiguous and requires that there exists more than one computational agent in each local neighborhood of computational agents.

Specifically, independent claim 1 recites that "the computational agents in each local neighborhood [are] communicatively coupled to each other for directly communicating their desired actuator responses to each other", and independent claim 15 recites the step of "computing an actuator response using (i) the computed local actuator response received from computational agents in its local neighborhood of computational agents".

These recited limitations in each independent claim require at least two computational agents in each local neighborhood of computational agents in order that this limitation of the claim exist (i.e., each computational agent in a neighborhood of computational agents receives from another computational agent in its local neighborhood the computed local actuator response). This claimed limitation is further shown in Applicant's Figure 6 and described in Applicant's specification at page 14, lines 4-7, which recites in part that "agents forming these local neighborhoods of agents 620 share their desired actuator response as indicated by arrow 622".

In addition, for the record, an after-final amendment under 37 C.F.R. §1.116 (faxed July 8, 2002) proposed amending claim 1 to recite that each local neighborhood comprises a plurality of computational agents. However, the Advisory Action (mailed July 9, 2002) did not enter this proposed amendment asserting that it did not place the Application in better form for appeal by materially reducing or simplifying the issues for appeal. Accordingly in view of the remarks in the Examiner's Answer at page 7, lines 13-19, Applicant respectfully submits that the proposed amendment to claim 1 in the after-final amendment (faxed July 8, 2002) should have been entered thereby reducing the issues on Appeal.

3. Assertion That Harada Discloses Communicating Power Generators

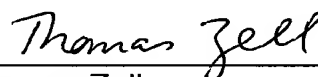
The Examiner's Answer (at page 5, line 12 through page 7, line 19) asserts that Harada (U.S. Patent No. 5,553,003) discloses local neighborhoods of computational agents (see Appeal Brief section B.2 starting on page 8). The Examiner's Answer relies on the assertion that the meaning of three dots in sequence (e.g., "...") between objects in the Figures of Harada identifies a communication link between the objects (see Examiner's Answer, page 6, lines 3-4 and page 7, lines 4-6).

Applicant respectfully disagrees and submits that three dots in sequence (e.g., "...") between two objects as used in Harada (e.g., power generating stations 13 in Figure 14, power dealers 93a and 93b in Figure 13; power generating stations 77a and 77b and generators 78a and 78b in Figure 11; power generating stations 13a and 13b and generators 16a and 16b in Figure 9; subsystems 3a and 3b, and 6a and 6b in Figure 1) indicates a repeating series of elements and not a communicative link between elements as suggested in the Examiner's Answer (at page 5, line 12 through page 7, line 19).

II. Conclusion

Based on the arguments presented in the Appeal Brief and this Reply Brief, applicant asserts that claims 1-20 are in condition for allowance. Applicant therefore urges the Board of Patent Appeals and Interferences to reverse the Examiner's final rejection of claims 1-20.

Respectfully submitted,



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Grenoble, France
Date: March 28, 2003